

=> 15 and 18

L9 20 L5 AND L8

=> 16 and 19

L10 19 L6 AND L9

=> d 1-19 pno

1.	5,732,177	[IMAGE AVAILABLE]
2.	5,724,463	[IMAGE AVAILABLE]
3.	5,703,710	[IMAGE AVAILABLE]
4.	5,664,032	[IMAGE AVAILABLE]
5.	5,652,817	[IMAGE AVAILABLE]
6.	5,647,036	[IMAGE AVAILABLE]
7.	5,630,004	[IMAGE AVAILABLE]
8.	5,586,206	[IMAGE AVAILABLE]
9.	5,581,642	[IMAGE AVAILABLE]
10.	5,544,268	[IMAGE AVAILABLE]
11.	5,541,947	[IMAGE AVAILABLE]
12.	5,513,196	[IMAGE AVAILABLE]
13.	5,504,772	[IMAGE AVAILABLE]
14.	5,499,256	[IMAGE AVAILABLE]
15.	5,491,762	[IMAGE AVAILABLE]
16.	5,488,681	[IMAGE AVAILABLE]
17.	5,473,157	[IMAGE AVAILABLE]
18.	5,349,602	[IMAGE AVAILABLE]
19.	5,278,812	[IMAGE AVAILABLE]

=> 359/116,134,160,340,341/ccls or 385/10,28/ccls or 372/6,19/ccls

23 359/116/CCLS
51 359/134/CCLS
97 359/160/CCLS
24 359/340/CCLS
388 359/341/CCLS
493 359/116,134,160,340,341/CCLS
((359/116 OR 359/134 OR 359/160 OR 359/340 OR 359/341)/CC

LS)

77 385/10/CCLS
226 385/28/CCLS
301 385/10,28/CCLS
((385/10 OR 385/28)/CCLS)
492 372/6/CCLS
383 372/19/CCLS
855 372/6,19/CCLS
((372/6 OR 372/19)/CCLS)

L11 1477 359/116,134,160,340,341/CCLS OR 385/10,28/CCLS OR 372/6,19/
CCL

S

=> d his

(FILE 'USPAT' ENTERED AT 15:11:05 ON 21 MAY 1998)

L1 2270 DIFFRACT?(1W)LIMIT?
L2 5552 MODE?(1A)CONVER?
L3 11333 SINGLE(1W)MODE
L4 7889 MULTIMOD? OR (MULTI(1W)(MODE? OR MODAL?))
L5 238754 AMPLIF?

L6 254993 FIBER? OR FIBRE?
L7 33 L1 AND L2 AND L3
L8 26 L4 AND L7
L9 20 L5 AND L8
L10 19 L6 AND L9
L11 1477 359/116,134,160,340,341/CCLS OR 385/10,28/CCLS OR 372/6,19
/CC

=> 11 and 111

L12 63 L1 AND L11

=> 12 and 112

L13 8 L2 AND L12

=> 13 and 113

L14 8 L3 AND L13

=> 14 and 114

L15 7 L4 AND L14

=> 15 and 115

L16 6 L5 AND L15

=> 16 and 116

L17 6 L6 AND L16

=> d 1-6 pno

1.	5,724,463	[IMAGE AVAILABLE]
2.	5,664,032	[IMAGE AVAILABLE]
3.	5,630,004	[IMAGE AVAILABLE]
4.	5,581,642	[IMAGE AVAILABLE]
5.	5,541,947	[IMAGE AVAILABLE]
6.	5,513,196	[IMAGE AVAILABLE]

surrounded by outer multimode waveguide.

-57- (WPIL)

TI - Optical fibre amplifier - has length of double-clad fibre with pump source coupled to length of fibre

-58- (WPIL)

TI - Periodic pass-band fibre=optic filter component for use in e.g. all-fibre signal handling system - has comparatively high index multimode overlay waveguide in optical contact with side-polished portion of single mode fibre

-59- (WPIL)

TI - Long pulse production from short pulses method using optical fibre amplifier - injecting seed beam of one wavelength into inner core at one end of fibre, injecting pump pulse of shorter wavelength into cladding at other end of fibre and directing amplified seed beam from other end of inner core to desired transmission

-60- (WPIL)

TI - Fibre=optic transmitter for optical communications - has amplifier circuit for stimulating single mode laser diode using DC offset, modulated signal and hf noise to transform it into multi-mode laser diode

-61- (WPIL)

TI - Optical beam amplification and delivery system for laser signal transmission - generates and amplifies beam to high power level at central station and transmits beam to local stations

-62- (WPIL)

TI - Optical fibre coupler for amplifier - is formed by twining number of optical fibres and fixing them by fusion

-63- (WPIL)

TI - Optical amplifier having single-mode curved active fibre - contains fluorescent doping in optical core having emission at transmission wavelength, with luminous pumping signal supplied

-64- (WPIL)

TI - Optical fibre for use as optical fibre lasers and amplifiers - has laser material core and two cladding layers with core offset from centre of centre of cladding layers

-65- (WPIL)

TI - Fluoro:zirconate neodymium fibre optic laser - heavy metal fluoride glasses enable laser action at 1.32 microns

-66- (WPIL)

TI - Axial alignment method using optical fibre splicing - moves one fibre transversely w.r.t. other according to detected amplified reflected light signal until min. is reached

SS 16?

his

SS 1: HARTER DJ/AU (27)

INSC(27)

COMP(0)

WPIL(0)

SS 2: DIFFRACT: (1N) LIMIT: (4876)

INSC(2778)

COMP(1825)

WPIL(273)

SS 3: MODE (1N) LOCK: (12707)

	INSC(7018)	COMP(4951)	WPIL(738)
SS 4:	MODE (1N) CONVERT: (3173)		
	INSC(1078)	COMP(749)	WPIL(1346)
SS 5:	2 AND 4 (0)		
	INSC(0)	COMP(0)	WPIL(0)
SS 6:	SINGLE (1W) MODE (31506)		
	INSC(17095)	COMP(11736)	WPIL(2675)
SS 7:	2 AND 6 (281)		
	INSC(147)	COMP(120)	WPIL(14)
SS 8:	MULTIMOD: OR (MULTI (W) (MODE: OR MODAL:)) (20440)		
	INSC(10903)	COMP(7677)	WPIL(1860)
SS 9:	2 AND 8 (79)		
	INSC(43)	COMP(32)	WPIL(4)
SS 10:	6 AND 9 (22)		
	INSC(10)	COMP(11)	WPIL(1)
SS 11:	6 AND 8 (2898)		
	INSC(1603)	COMP(1058)	WPIL(237)
SS 12:	AMPLIF: (251396)		
	INSC(63822)	COMP(49190)	WPIL(138384)
SS 13:	11 AND 12 (118)		
	INSC(59)	COMP(37)	WPIL(22)
SS 14:	FIBRE: OR FIBER: (475856)		
	INSC(102575)	COMP(132048)	WPIL(241233)
SS 15:	13 AND 14 (66)		
	INSC(30)	COMP(19)	WPIL(17)
SS 16?			
prt -15 fu			

-15- (INSC)

AN - 4494384

ABN - A9322-4260F-003; B9311-4320G-022

TI - Partially coherent light generated by using single and multimode optical fibers in a high-power Nd:glass laser system.

AU - Nakano H; Miyanaga N; Yagi K; Tsubakimoto K; Kanabe T; Nakatsuka M; Nakai S

OS - Inst. of Laser Eng., Osaka Univ., Japan

SO - Applied Physics Letters, vol.63, no.5, pp. 580-582, 2 Aug. 1993

CP - USA

LA - English

DT - J (Journal Paper)

JC - APPLAB

NU - ISSN 0003-6951

PY - 93

TC - XP (Experimental)

CPN - 0003-6951/93/63(5)/580/3/ \$6.00

AB - A simple and flexible method is presented for generating a partially coherent light which obtains the highly smooth focused beam pattern. The beam divergence of 32 times diffraction limited light having a spectral width of 1.6 nm has been easily and reproducibly achieved by injecting a laser pulse from an actively mode-locked Nd:YLF oscillator to a single mode optical fiber, coupled to a multimode optical fiber. Temporal evolution of the beam smoothing due to the induced incoherency was examined with temporally resolved measurements of the beam pattern. The partially coherent light was focused through a random phase plate after the amplification. Small-scale intensity perturbation in a focused beam pattern was greatly reduced. (15 Ref.)

IT - focusing; light coherence; neodymium; optical fibres; solid lasers

ST - laser pulse injection; high-power Nd:glass laser; partially coherent